

Fig. 1

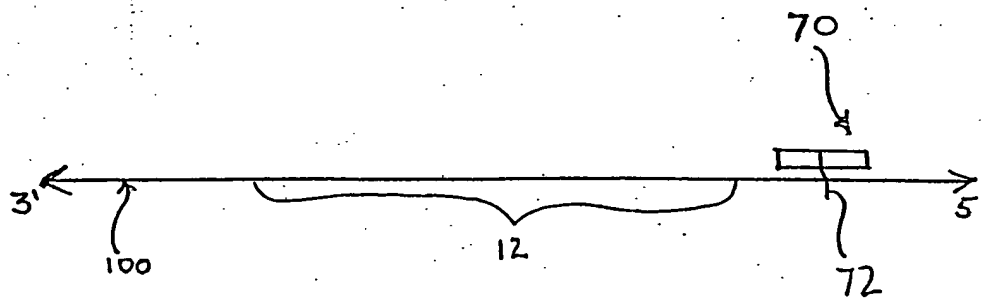


Fig. 2A

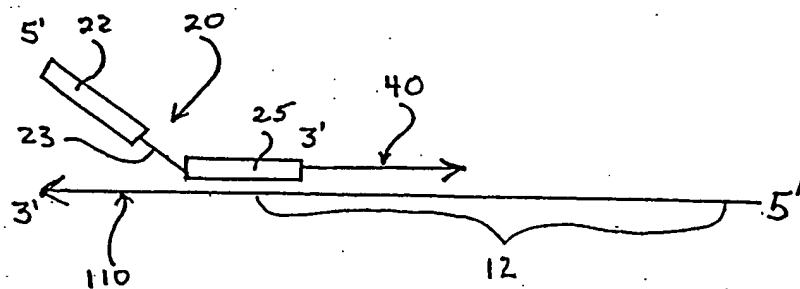
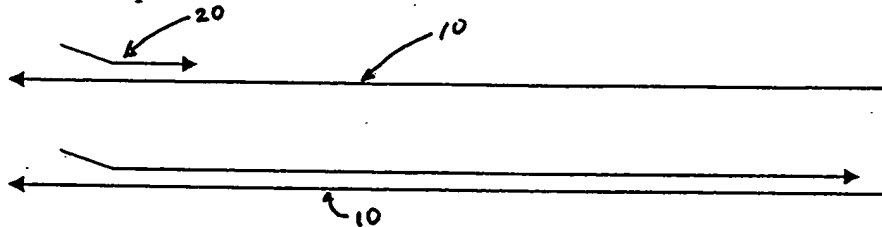


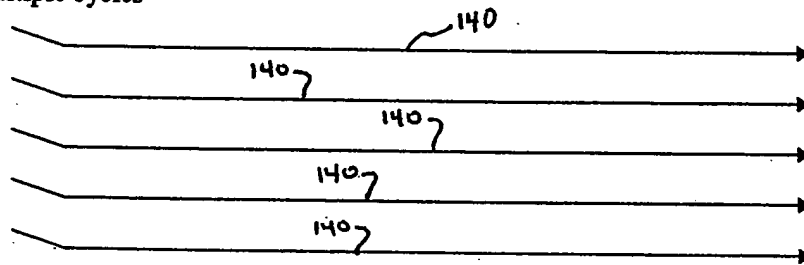
Fig. 2B

Fig. 3

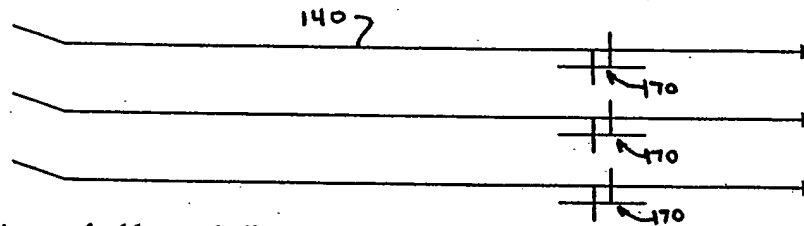
2nd strand cDNA synthesis on 1st strand cDNA by a primer that has a first portion that hybridizes to the variable region of an antibody gene and a second portion with a predetermined sequence



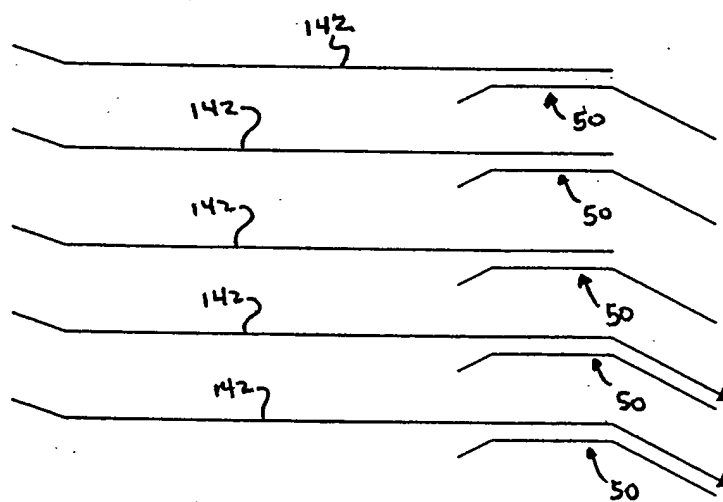
Repeat multiple cycles



Hybridize a restriction oligonucleotide on the desired position in the constant region of an antibody gene and digest with an appropriate restriction enzyme (RED)



Heat denature and add nested oligo nucleotide and perform nested oligonucleotide extension reaction (NOER)



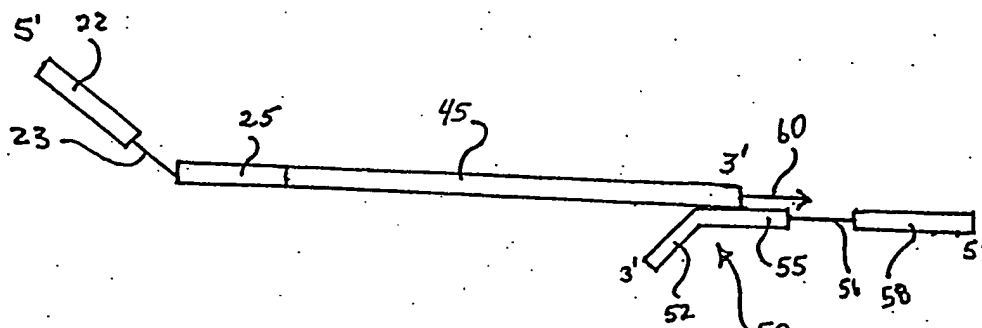


Fig. 4

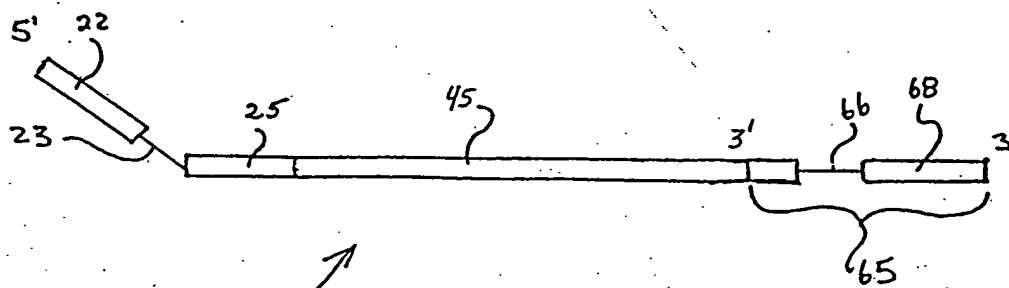
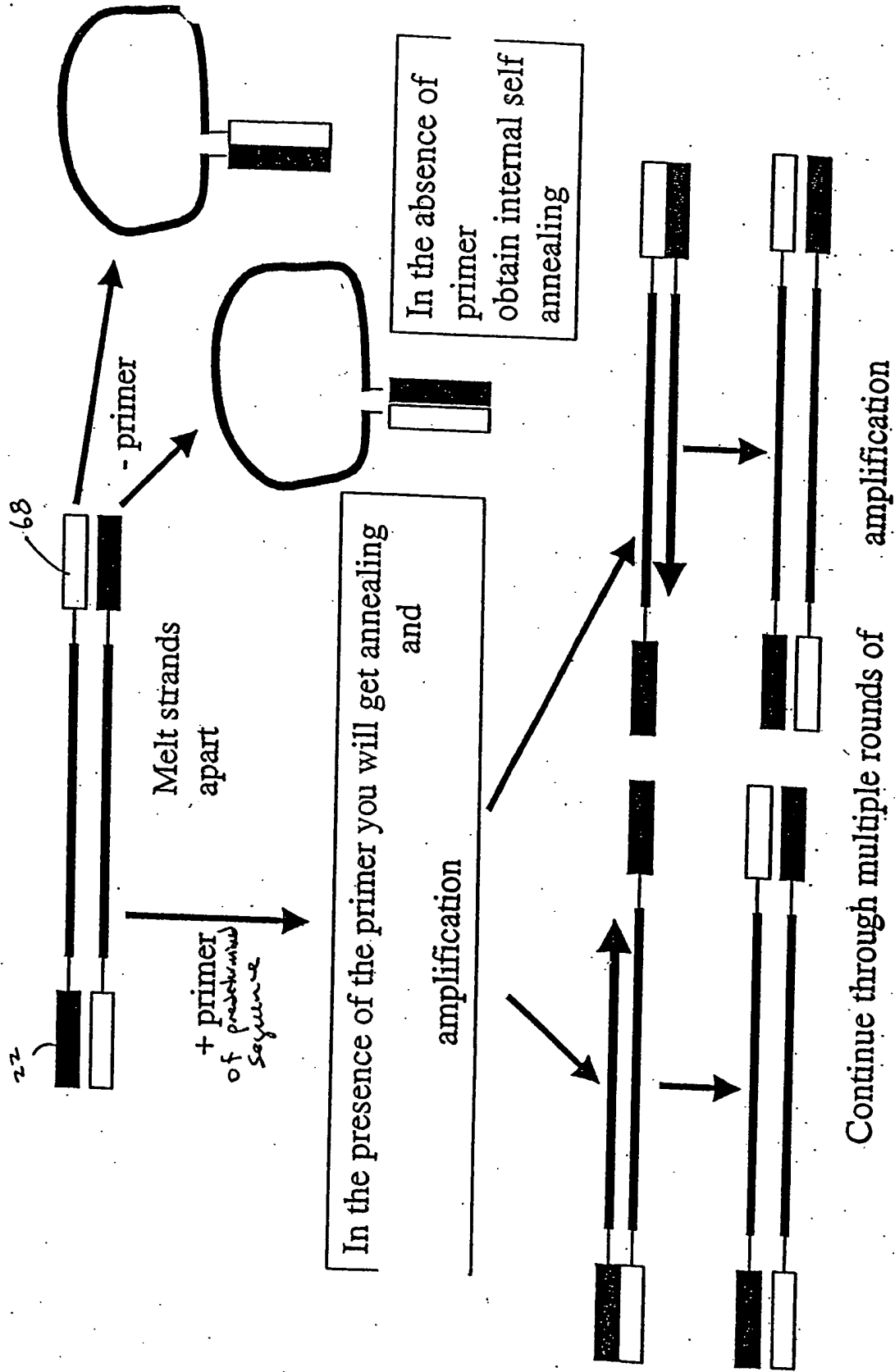


Fig. 5

Figure 6. Single primer amplification



IgG kappa clones

Heavy chain

Fab	framework 1	CDR1	framework 2	CDR2
HBPAK1a	EVQLVSGGGLVQPGSLRLSCAASGFTFG	S--YTMN	WYRAAPGKLEWIS	YIST--TSSSIYADSVKG
HBPAK1b	Q...L...V...T...T...	---	---	---
HBPAK1c	Q...L...V...T...T...	---	---	---
HBPAK1d	Q...L...V...T...T...	---	---	---
HBPAK2a	EVQLVSGGGLVQPGSLRLSCAASGFTLS	S--SAMS	WYRAAPGKLEWIS	VNSG--NGFSYIADSVKG
HBPAK2b	Q...L...V...T...T...	---	---	---
HBPAK2c	Q...L...V...T...T...	---	---	---
HBPAK2d	Q...L...V...T...T...	---	---	---
HBPAK2e	Q...L...V...T...T...	---	---	---
HBPAK3a	EVQLVSGGGLVQPGSLRLSCAASGFTFS	S--SAMS	WYRAAPGKLEWIS	VISG--NGFSYIADSVKG
HBPAK3b	Q...L...V...T...T...	---	---	---
HBPAK4a	Q...L...V...T...T...	---	---	---
HBPAK4b	Q...L...V...T...T...	---	---	---
HBPAK5	QVQVQSGAEVKKPGASVKVSCKASGYTFT	S--YGMH	WYRAAPGKLEWIS	LVNP--TNGYTAYAPKFG
HBPAK6	EVQLVSGGGLVQPGSLRLSCAASGFTFS	N--YAMS	WYRAAPGKLEWIS	YIST--TSSSIYADSVKG
HBPAK7a	QVQLQESGGGLVQPGSLRLSCAASGFTFS	SLMYFWG	WYRAAPGKLEWIS	SIY--YSGTAYNPFLRS
HBPAK7b	Q...L...V...T...T...	---	---	---
HBPAK7c	Q...L...V...T...T...	---	---	---
HBPAK7d	Q...L...V...T...T...	---	---	---
HBPAK7e	Q...L...V...T...T...	---	---	---
HBPAK8	Q...L...V...T...T...	---	---	---
HBPAK9a	EVQLVSGGGLVQPGSLRLSCAASGFTFS	R--YTLN	WYRAAPGKLEWIS	YIST--DGSTIYADSVKG
HBPAK9b	Q...L...V...T...T...	---	---	---
HBPAK10	EVQLVSGGGLVQPGSLRLSCAASGFTFS	A--YMH	WYRAAPGKLEWIS	WITP--DNGRTNAAQFOR
HBPAK11	QVQLVSGGGLVQPGSLRLSCAASGFTFD	D--YAMH	WYRAAPGKLEWIS	LISW--DAISTYIADSVKG

Fab	framework 3	CDR3	DH	JH
HBPAK1a	RFSISRDNKNSLYLQMSLRSED	TAIVYCAR	VFFVEGS	YWSFDLWGRGTLVTYSS
HBPAK1b	Q...L...V...T...T...	---	---	---
HBPAK1c	Q...L...V...T...T...	---	---	---
HBPAK1d	Q...L...V...T...T...	---	---	---
HBPAK2a	RFSISRDNKNSLYLQMSLRSED	TAIVYCAR	VFFVEGS	YWSFDLWGRGTLVTYSS
HBPAK2b	Q...L...V...T...T...	---	---	---
HBPAK2c	Q...L...V...T...T...	---	---	---
HBPAK2d	Q...L...V...T...T...	---	---	---
HBPAK2e	Q...L...V...T...T...	---	---	---
HBPAK3a	RFSISRDNKNSLYLQMSLRSED	TAIVYCAR	VFFVEGS	YWSFDLWGRGTLVTYSS
HBPAK3b	Q...L...V...T...T...	---	---	---
HBPAK4a	RVTWTRQRTSTVYMLSLRSED	TAIVYCAR	VFFVEGS	YWSFDLWGRGTLVTYSS
HBPAK4b	Q...L...V...T...T...	---	---	---
HBPAK5	RVTWTRQRTSTVYMLSLRSED	TAIVYCAR	VFFVEGS	YWSFDLWGRGTLVTYSS
HBPAK6	RFSISRDNKNSLYLQMSLRSED	TAIVYCAR	VFFVEGS	YWSFDLWGRGTLVTYSS
HBPAK7a	RATISVDTSKNQSLKMSVTAAD	TAIVYCAR	VFFVEGS	YWSFDLWGRGTLVTYSS
HBPAK7b	Q...L...V...T...T...	---	---	---
HBPAK7c	Q...L...V...T...T...	---	---	---
HBPAK7d	Q...L...V...T...T...	---	---	---
HBPAK7e	Q...L...V...T...T...	---	---	---
HBPAK8	RFTISRDNKNSLYLQMSLRSED	TAIVYCAR	VFFVEGS	YWSFDLWGRGTLVTYSS
HBPAK9a	RFTISRDNKNSLYLQMSLRSED	TAIVYCAR	VFFVEGS	YWSFDLWGRGTLVTYSS
HBPAK9b	Q...L...V...T...T...	---	---	---
HBPAK10	RITLTSDDTSNTVYMLSLKSD	TAIVYCAR	VFFVEGS	YWSFDLWGRGTLVTYSS
HBPAK11	RFTISRDNKNSLYLQMSLRSED	TAIVYCAR	VFFVEGS	YWSFDLWGRGTLVTYSS

Fig 8a

Light chain

Fab	Clone	framework 1	CDR1	framework 2	CDR2
HPBAXK1a	3A1	EIVMTQSPALSVSPGERATLSC	RASQSISS-----SLA	WYQKPGQAPRLLIY	AASTRAT VK3
HPBAXK1b	3A2	.....T.....	.....V.....	.....N..	.....G..... VK3
HPBAXK1c	3A3	.....F.....T.....A.....	.....T.....NN.....	.....D.V.....	.....R.....G.....F GT.....P VK3
HPBAXK1c	3A8	.....T.....T.....S.....	.....N.....R.....	.....S.....	.....G.....S VK3
HPBAXK1c	3G6	.....T.....T.....TT.....	.....H.....V.....	.....D.....	.....T.....A VK3
HPBAXK1d	3C11	.....T.....T.....	.....G.....V.....	.....N.....	.....H..... VK3
HPBAXK1d	3F4	.....T.....T.....	.....W.....V.....	.....D.....	.....H..... VK3
HPBAXK2a	3A4	.....T.....T.....	.....G.....	.....Y.....	.....G..... VK3
HPBAXK2b	3A5	.....L.....T.....A.....	.....V.....N.....	.....N.....	.....G..... VK3
HPBAXK2c	3A6	.....T.....T.....	.....H.....P.....V.....	.....N.....	.....G..... VK3
HPBAXK2c	3B8	.....T.....T.....V.....	.....G.....V.....	.....N.....	.....MS.....G..... VK3
HPBAXK2c	3B10	.....T.....T.....	.....V.....V.....	.....N.....	.....G..... VK3
HPBAXK2c	3E10	.....T.....T.....D.....	.....H.....P.....V.....T.....	.....N.V.....	.....GS..... VK3
HPBAXK2c	3H9	.....T.....T.....	.....V.....	.....N.....	.....VK3
HPBAXK2d	3A9	.....T.....T.....	.....V.....	.....N.L.....	.....G..... VK3
HPBAXK2d	3A12	.....T.....T.....	.....V.....	.....N.L.....	.....G..... VK3
HPBAXK2d	3B4	.....T.....T.....EQ.....	.....V.....	.....N.L.....	.....M.....D..... VK3
HPBAXK2d	3C1	.....T.....T.....	.....V.....	.....N.....	.....VK3
HPBAXK2d	3D12	.....T.....T.....	.....V.....	.....N.....	.....GT..... VK3
HPBAXK2e	3G4	.....V.....S.....EL.....V.....	.....V.....R.....G.....	.....D.....	.....P.....N..... VK3
HPBAXK3a	3B1	.....T.....T.....	.....V.....T.....	.....N.....	.....H..... VK3
HPBAXK3b	3C6	.....D.....T.....T.....EA.....	.....V.....N.....	.....N.....	.....VK3
HPBAXK4a	3B3	D.....Q.....L.....ST.....A.....V.....D.....V.....IT.....	.....S.....	.....K.....	.....Q.....S.....L.....Q.....S VK1
HPBAXK4b	3F2	D.....Q.....L.....ST.....A.....V.....D.....V.....IT.....	.....R.....P.....K.....T.....	.....W.....	.....D.....S.....L.....E.....S VK1
HPBAXK5	3B6	.....T.....T.....	.....V.....V.....	.....N.....	.....G..... VK3
HPBAXK6	3C7	.....L.....GT.....L.....	.....V.....S.....	.....Y.....	.....G.....S..... VK3
HPBAXK7a	3D1	.....L.....GT.....L.....	.....V.....N.....K.....	.....F.....	.....R.....P..... VK3
HPBAXK7b	3D3	.....L.....GT.....L.....	.....V.....S.....	.....Y.....	.....G.....S..... VK3
HPBAXK7b	3F5	.....L.....GT.....L.....	.....I.....	.....Y.....	.....S.....T..... VK3
HPBAXK7c	3D7	.....L.....GT.....L.....	.....F.....G.....N.....	.....N.....	.....R.....L..... VK3
HPBAXK7d	3E1	D.....S.....A.....L.....	.....I.....N.....	.....K.....S.....	.....V.....L.....Y.....S.....N.....K.....N..... VK4
HPBAXK7e	3E8	.....S.....S.....	.....	.....N.....	.....G.....N..... VK3
HPBAXK8	3D9	D.....D.....D.....S.....L.....	.....N.....	.....K.....S.....	.....V.....L.....Y.....S.....N.....K.....N..... VK4
HPBAXK9a	3E3	.....L.....T.....L.....	.....	.....G.....V.....	.....Q..... VK3
HPBAXK9b	3E7	.....L.....T.....L.....	.....	.....V.....	.....Y..... VK3
HPBAXK9b	3G5	.....L.....T.....L.....	.....	.....Y.....	.....D.....N..... VK3
HPBAXK10	3F10	D.....M.....S.....A.....L.....	.....I.....Y.....	.....K.....S.....	.....T.....L.....S.....R.....N.....Q.....K..... VK4
HPBAXK11	3G8	D.....Q.....L.....S.....A.....V.....D.....V.....S.....IT.....	.....D.....N.....	.....Y.....V.....	.....F.....S.....L.....Q..... VK1

Fig 8b

HBPAK1a	3A1	GIPARFSGSGTGTEFTLTITSSIQSEDFVYVC	QQYNNWP--ITFGGTRLEIR	JK5	(Seq. ID No. 108)
HBPAK1b	3A2	.....A.....	.....K	JK5	(Seq. ID No. 109)
HBPAK1c	3A3	.....DY.....S.....	.....P.....VDF	JK3	(Seq. ID No. 110)
HBPAK1c	3A8	.....L.....	.....G.....KV	JK4	(Seq. ID No. 111)
HBPAK1c	3G6	.....V.....	.....K.....V.....G.....KVDL	JK4	(Seq. ID No. 112)
HBPAK1d	3C11	.....A.....	.....DK.....P.....N.....K	JK2	(Seq. ID No. 113)
HBPAK1d	3F4	.....A.....	.....K.....P.....N.....K	JK2	(Seq. ID No. 114)
HBPAK2a	3A4	.....C.....E.....	.....H.....P.....KV.....K	JK1	(Seq. ID No. 115)
HBPAK2b	3A5	.....C.....E.....	.....H.....P.....KV.....K	JK1	(Seq. ID No. 116)
HBPAK2c	3A6	.....C.....E.....	.....H.....P.....KV.....K	JK1	(Seq. ID No. 117)
HBPAK2c	3B8	.....C.....E.....	.....H.....P.....KV.....K	JK1	(Seq. ID No. 118)
HBPAK2c	3E10	.....T.....	.....HA.....	JK5	(Seq. ID No. 119)
HBPAK2c	3E10	.....T.....	.....HA.....	JK5	(Seq. ID No. 120)
HBPAK2c	3H9	.....T.....	.....HA.....	JK5	(Seq. ID No. 121)
HBPAK2d	3A9	.....C.....E.....	.....H.....P.....KV.....K	JK1	(Seq. ID No. 122)
HBPAK2d	3A12	.....C.....E.....	.....H.....P.....KV.....K	JK1	(Seq. ID No. 123)
HBPAK2d	3B4	.....C.....E.....	.....H.....P.....KV.....K	JK1	(Seq. ID No. 124)
HBPAK2d	3C1	.....C.....E.....	.....H.....P.....KV.....K	JK1	(Seq. ID No. 125)
HBPAK2d	3D12	.....C.....E.....	.....H.....P.....KV.....K	JK1	(Seq. ID No. 126)
HBPAK2e	3G4	.....SD.....	.....A.....PD.....A.....S.....	JK1	(Seq. ID No. 127)
HBPAK3a	3B1	.....A.....	.....E.....E.....P.....N.....K	JK2	(Seq. ID No. 128)
HBPAK3b	3C6	.....A.....	.....E.....E.....P.....N.....K	JK2	(Seq. ID No. 129)
HBPAK4a	3B3	.....V.....S.....	.....SSYS--GP.....L.....KV.....K	JK1	(Seq. ID No. 130)
HBPAK4b	3F2	.....V.....S.....	.....SSYS--GP.....L.....KV.....K	JK1	(Seq. ID No. 131)
HBPAK5	3B6	.....D.....	.....TW.....	JK1	(Seq. ID No. 132)
HBPAK6	3C7	.....D.....	.....TW.....	JK1	(Seq. ID No. 133)
HBPAK7a	3D1	.....D.....	.....H.....GSSG-V.....DVK	JK5	(Seq. ID No. 134)
HBPAK7b	3D3	.....D.....	.....H.....GSSG-V.....DVK	JK5	(Seq. ID No. 135)
HBPAK7b	3F5	.....D.....	.....H.....GSSG-V.....DVK	JK5	(Seq. ID No. 136)
HBPAK7c	3D7	.....A.....D.....	.....GRP.....F.....P.....KV.....K	JK4	(Seq. ID No. 137)
HBPAK7d	3E1	.....V.....D.....	.....YST.....L.....G.....KV.....K	JK4	(Seq. ID No. 138)
HBPAK7e	3E8	.....DF.....	.....HD.....Q.....KV.....K	JK1	(Seq. ID No. 139)
HBPAK8	3D9	.....V.....D.....	.....YST.....L.....G.....KV.....K	JK4	(Seq. ID No. 140)
HBPAK9a	3E3	.....V.....D.....	.....YST.....L.....G.....KV.....K	JK4	(Seq. ID No. 141)
HBPAK9b	3E7	.....V.....D.....	.....YST.....L.....G.....KV.....K	JK4	(Seq. ID No. 142)
HBPAK9b	3G5	.....V.....D.....	.....YST.....L.....G.....KV.....K	JK5	(Seq. ID No. 143)
HBPAK10	3F10	.....V.....S.....	.....SSYS--GP.....L.....KV.....K	JK1	(Seq. ID No. 144)
HBPAK11	3G8	.....V.....S.....	.....SSYS--GP.....L.....KV.....K	JK1	(Seq. ID No. 145)

Fig 8c

IgG lambda clones

Heavy chain

Fab	framework 1				CDR1	framework 2				CDR2	
HBL1	3D11	LEEVQLLESGGGLVHPGGSLRLSCAASGFRFG	SYAMS	WVRQAPGKGLEWVS	SISGSGDTIYYADSVRG						
	3C12	LEEVQLLESGGGLVHPGGSLRLSCAASGFRFG	SYAMS	WVRQAPGKGLEWVS	SISGSGDTIYYADSVRG						
	3D9	LEEVQLLESGGGLVHPGGSLRLSCAASGFRFG	SYAMS	WVRQAPGKGLEWVS	SISGSGDTIYYADSVRG						
	HBL2a	3B5	LEEVQLLESGGGLVQPGGSLRLSCAASGFRFS	SYGMS	WVRQAPGKGLEWVS	GISGSSGTHYADSVRG					
	HBL2b	3B8	LEEVQLLESGGGLVQPGGSLRLSCAASGFRFT	SYGMS	WVRQAPGKGLEWVS	GISGNGRIYYADSVRG					
	HBL2c	3B9	LEEVQLLESGGGLVQPGGSLRLSCAASGFRFS	SYGMS	WVRQAPGKGLEWVS	GISGNGRIYYADSVRG					
	HBL2d	3C4	LEEVQLLESGGGLVQPGGSLRLSCAASGFRFS	SYGMS	WVRQVPGKGLEWVA	GITNSGKIYYADSVRG					
	HBL3	3B10	LEQVQLVESGGGVQPGGSLRLSCAASGFTFR	NYGMH	WVRQAPGKGLEWVA	YILYDGSKKIYYVDSVKG					
	HBL4a	3C11	LEQVQLVESGGGVQPGGSLRLSCAASGVRFS	SYGMH	WVRQAPGKGLEWVA	SISSDATKKNYADSVKG					
	HBL4b	3E5	LEQVQLVQSGGGVQPGGSLRLSCAASGVTFR	SYGMH	WVRQAPGKGLEWVA	FVSSDGNKNYADSVKG					
HBL4c	3E8	LEEVQLVESGGGVQPGGSLRLSCAASRLST	SYGMH	WVRQAPGKGLEWVA	SISSDGNKNYADSVKG						
	HBL4d	3E12	LEQVQLVESGGGVQPGGSLRLSCAASGLTFS	SYGMH	WVRQAPGKGLEWVA	FISYDGNKNYADSVKG					
	HBL5	3D1	LEEVQLLESGGGLVQPGGSLRLSCAASGFRFG	SYAMS	WVRQAPGKGLEWIS	GIVTGCGDTKYGDSVKG					
	HBL6	3F10	LEEVQLLESGGGLVQPGGSLRLSCAASGFSSS	AYALS	WVRQIPGKGLEWVS	AISGGGSGTIYYADSVKG					
	HBL7	3G5	LEQVQLVESGGGLVQPGGSLRLSCAASGFTFS	RYDIH	WVRQAPGKGLEWVA	LISYDGMKYKSSADSVKG					
	Fab	framework 3				DH	CDR3				JH
	HBL1	3D11	RFTISKDSSRNTLFLQNSLRVDDTAIVYYCAK	GSIFGTAKVYG	VDYWGQGLVTVSS	(Seq. ID No. 146)					
		3C12	RFTISKDSSRNTLFLQNSLRVDDTAIVYYCAK	GSIFGTAKVYG	VDYWGQGLVTVSS	(Seq. ID No. 147)					
		3D9	RFTISKDSSRNTLFLQNSLRVDDTAIVYYCAK	GSIFGTAKVYG	VDYWGQGLVTVSS	(Seq. ID No. 148)					
HBL2a		3B5	RFTISRDNKNTLYLQMSLRRAEDTAIVYYCAK	DGYIGSGLFYG	MDVWGQGTTVTVSS	(Seq. ID No. 149)					
HBL2b		3B8	RFTISRDNKNTLYLQMSLRRAEDTAIVYYCAK	DGYIGSGVFYG	MDVWGQGTTVTVSS	(Seq. ID No. 150)					
3C6		RFTISRDNKNTLYLQMSLRRAEDTAIVYYCAK	DGYIGSGVFYG	MDVWGQGTTVTVSS	(Seq. ID No. 151)						
HBL2c		3B9	RFTISRDNKNTLYLQMSLRRAEDTAIVYYCAK	DGYIGSGSFYG	IDVWGQGTTVTVSS	(Seq. ID No. 152)					
HBL2d		3C4	RFTISRDNKNTLYLQMSLRRAEDTAIVYYCAK	DGYIGSGLLYG	IDVWGQGTTVTVSS	(Seq. ID No. 153)					
HBL3		3B10	RFTVSRDNKNTLYLQMSLRPEDTAIVYYCVK	DGLLAGGYEGG	FDYWGQGLVTVSS	(Seq. ID No. 154)					
HBL4a		3C11	RFTISRDNKNTLHLQMTLRPEDTAIVYYCAK	TDILGPAIEFG	LDYWGQGLVTVSS	(Seq. ID No. 155)					
HBL4b	3E5	RFTISRDNKNTLHLQMTLRPEDTAIVYYCAK	TDILGPAIEFG	LDYWGQGLVTVSS	(Seq. ID No. 156)						
	HBL4c	3E8	RFTISRDNKNTLYLQMSLRRAEDTAIVYYCAK	TDILGPAIEFG	LDYWGQGLVTVSS	(Seq. ID No. 157)					
	HBL4d	3E12	RFTISRDNKNTLSLQMGILRRREDTAIVYYCAK	TDILGPAIEFG	LDYWGQGLVTVSS	(Seq. ID No. 158)					
	HBL5	3D1	RFTISRDNKNTLYLQMSLRRAEDTAIVYYCAK	SAIVVSGSYVG	FDYWGQGTTRVTVSS	(Seq. ID No. 159)					
	HBL6	3F10	RFTISRDNKNTLYLQMSLRAGEDTAIVYYCAT	GNVGRNVQNNY	FDLNGRGLTVTVSS	(Seq. ID No. 160)					
	HBL7	3G5	RFTVSRNSRNTVFLQMSGLRPEDTAIVYFCAK	SDVMARARGSG	FDVWGQGTTVTVSS	(Seq. ID No. 161)					

Fig 8d

Fab	framework 1		CDR1	framework 2	CDR2
HBL1	3D11	SRSYELTPPSVSVPAGQTARITC	GGNTIGSQSVH	WYQKPGQAPVLVY	DDSDRPS
	3C12	SRSYVLTQPPSVSVAPGQTASITAC	GGNNIGSKSVH	WYQKPGQAPVLVY	DDTDRPS
	3D9	SRSYELTOPPSVSVPARTDQITC	GEDKIESKSVH	WYQKPGQAPVLVY	DDSDRPS
HBL2a	3B5	SRLFVLTQPPSVSVAPGQTARITC	GGNNIGSKSVH	WYQKPGQAPVLVY	DDNERPS
HBL2b	3B8	SRSYVLTQPPSVSVAPGQTARITC	GGDSIGSKSVH	WYQKPGQAPVLVY	DDSDRPS
	3C6	SRSYVLTQPPSVSVAPGQTARITC	GGNNIGSKSVH	WYQKPGQAPVLVY	DDSDRPS
HBL2c	3B9	SRSYELTOPPSVTVVPGQTARITC	GGNNIGSRSVH	WYQKPGQAPLLVY	DDSDRPS
HBL2d	3C4	SRLFVLTQPPSVSVAPGQTARITC	GGNNIGSKSVH	WYQKPGQAPVLVH	DDSDRPS
HBL3	3B10	SRSYVLTQPPSVSVAPGQTAKIIC	GGNNIGAKSVQ	WYQORPGAPLMVY	DDTERPS
HBL4a	3C11	SRSQVLTQPPSVSVAPGQTARITC	GGNNIGSKSVH	WYQKPGQAPVLVY	DDSDRPS
	3D6	SRSYVLTQPPSVSVAPGQTARITC	GGDNIGIKTVQ	WYQKPGQAPVLVY	DDSDRPS
HBL4b	3E5	SRSQVLTQPPSVSVAPGQMARITC	GGNNIGRQSVN	WYQRPQGPAPVLVY	DDSDRPS
HBL4c	3E8	SRSYELTQPPSVSVAPGQTARITC	GGNNIGSKSVH	WYQKPGQAPVLVY	DDSDRPS
HBL4d	3E12	SRLFVLTQPPSVSVAPGQTASITAC	GGDNIGSKSVH	WYQKAGQAPVLVY	DDNDRPS
HBL5	3D1	SRSYVLTQPPSVSVAPGQTARITC	GGNSIGSKSVH	WYQKPGQAPVLVY	DDSDRPS
HBL7	3G5	SRSQAVLTQPPSVSVAPGQTARITC	GGNNIGSKSAH	WYQORPGQAPVLVY	DDSDRPS

Fab	framework 3			CDR3	JL
HBL1	3D11	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 163)
	3C12	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDASSDQPY-	VVFGGTRLTVL	(Seq. ID No. 164)
	3D9	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSHH---	VVFGGTRLTVL	(Seq. ID No. 165)
HBL2a	3B5	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 166)
HBL2b	3B8	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWHITSDHPN-	VVFGGTRLTVL	(Seq. ID No. 167)
	3C6	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 168)
HBL2c	3B9	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 169)
HBL2d	3C4	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 170)
HBL3	3B10	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 171)
HBL4a	3C11	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 172)
	3D6	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 173)
HBL4b	3E5	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 174)
HBL4c	3E8	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 175)
HBL4d	3E12	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 176)
HBL5	3D1	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 177)
HBL7	3G5	GIPERFSGNSGNTATLTISRVEAGDEADYYC	QVWDSSSDH---	VVFGGTRLTVL	(Seq. ID No. 178)

HBL2d 3C4 had a "tga" stop codon in CDR1 as indicated by "J".

Fig 8e

Mouse IgG kappa clones to IgE Fc

Heavy chain

Fab	Framework 1		Framework 2		CDR2	
	Framework 1	CDR1	Framework 2	CDR2		
m2G1R2A8	QSGAELMKPGASVKISKATDYTFS	NYWIE	WVKQRPGHGLEWIG	EILPGSGSTNFNEKFKG		
m2G1R2B9	.....I.....RT.....	.....R.....	.....T.....	.....R.....		
m2G1R2B11, C5	.....V.....S.....	.....I.....	.....D.....	.....R.....		
m2G1R2C2, F9, c3	.....V.....S.....	.....I.....	.....D.....	.....R.....		
m2G1R2C8	.....V.....S.....	.....I.....	.....D.....	.....R.....		
m2G1R2F12	.....V.....S.....	.....I.....	.....D.....	.....R.....		
m2G1R2G1, C11	.....V.....S.....	.....I.....	.....D.....	.....R.....		
m2G1R2H8	.....V.....S.....	.....I.....	.....D.....	.....R.....		
m2G1R2F7	.....V.....S.....	.....I.....	.....D.....	.....R.....		
m2G1R2D10	.....V.....S.....	.....I.....	.....D.....	.....R.....		
m2G1R2F10	.....V.....S.....	.....I.....	.....D.....	.....R.....		
m2G1R2H3	.....V.....S.....	.....I.....	.....D.....	.....R.....		
m2G1R2H7	.....V.....S.....	.....I.....	.....D.....	.....R.....		
m2G1R2a9	.....V.....S.....	.....I.....	.....D.....	.....R.....		

Fab	Framework 3		CDR3		FR4	
	Framework 3	CDR3	FR4			
m2G1R2A8	KATFTADTSSNTAYMQLSSLTSEDSAVYYCAR	AYFTFS	LDYWGQGTTLTVSS	(Seq.	ID No.	233)
m2G1R2B9	.....	.....	.....	(Seq.	ID No.	234)
m2G1R2B11, C5	.....Y.....	.....Y.....	.....	(Seq.	ID No.	235)
m2G1R2C2, F9, c3	.....Y.....	.....Y.....	.....	(Seq.	ID No.	236)
m2G1R2C8	.....L.....	.....Y.....	.....	(Seq.	ID No.	237)
m2G1R2F12	.....	.....Y.....	.....	(Seq.	ID No.	238)
m2G1R2G1, C11	.....	.....Y.....	.....	(Seq.	ID No.	239)
m2G1R2H8	.....	.....Y.....	.....	(Seq.	ID No.	240)
m2G1R2F7	.....Y.....	.....Y.....	.....	(Seq.	ID No.	241)
m2G1R2D10	.....S.....	.....Y.....	.....	(Seq.	ID No.	242)
m2G1R2F10	.....Y.....	.....Y.....	.....	(Seq.	ID No.	243)
m2G1R2H3	.....Y.....	.....Y.....	.....	(Seq.	ID No.	244)
m2G1R2H7	.....Y.....	.....Y.....	.....	(Seq.	ID No.	245)
m2G1R2a9	.....Y.....	.....Y.....	.....	(Seq.	ID No.	246)

Fig. 9a

Mouse IgG lambda clones to IgE Fc

Heavy chain

Fab	Framework 1	CDR1	Framework 2	CDR2
m3G1R3A11	GAELMKPGASVKISCKATGYTFN	TYWIE	WVKQRPFGHGLEWIG	EILPGTDNTNYNEKFKG
m3G1R3A12	.....	.....	.....	.....
m3G1R3D12	.....	.....	.....	.....
m3G1R3G8	.....	.....	.....	.....
m3G1R3E9	.....	.....	.....R.....	.....
m3G1R3B10	GAELMKPGASVKISCKATGYTLS	SYWIE	WVKQRPFGHGLEWIG	EILPGSDNTNYNEKFKG
m3G1R3B11	.....LS.....	S.....	.....	.....S.....
m3G1R3F11	.....LS.....	S.....	.....	.....S.....
m3G1R3H9	.....LS.....	S.....	.....	.....S.....
m3G1R3E7	LVDPGGLVQPGSLRLSCE TSGFTFT	DY YLS	WVRQPPGKALEWLG	FIRNKANGYTT EYSASVKG
m3G1R3E10	.....	.....MT.....	.....	.....
m3G1R3F8	.....	.....LS.....	.....	.....
m3G1R3G9	.....	.....LS.....	.....	.....
m3G1R3B7	GTELMPGASVKISCRATGYTFS	DYWIE	WVKQRPFGHGLEWIG	EILPGSGDTNYNEKFKG
m3G1R3C7	•T.....R.....S	D.....	.....	.....SGD.....
m3G1R3G12	•T.....R.....S	D.....	.....	.....SGD.....
m3G2aR3C8	QLQQS•T.....R.....S	D.....	.....	.....SGD.....
m3G2aR3H7	•T.....S.....S	S.....	•Y.....	.....SGD.....
m3G2aR3B10	GGGLVQPGNSLRLSCATSGFTFT	DY YLS	WVRQPPGKALEWLG	FIRNKNGYTT EYSASVKG
m3G2aR3E10	.....	.....	.....	.....
m3G2aR3D8	.....	.....M.....	.....	.....A.....
m3G2aR3D4	HQQSGAELMKPGASVKISCKSTGYTFS	SYWIE	WIKQRPFGHGLEWIG	EILPGSGFTNYNENFKG
m3G2aR3B4	.....A.....	.....	.....	.....

Fig. 9b

Fab	Framework 3	CDR3	FR4
m3G1R3A11	KATFTADTSSNTAYMQLSSLTSEDSAVYYCAR	QVGLRWF	FDYWGQGTTLTVSS (Seq. ID No. 247)
m3G1R3A12	.....	.....	..... (Seq. ID No. 248)
m3G1R3D12	.....	.....	..... (Seq. ID No. 249)
m3G1R3G8	.....	.....	..... (Seq. ID No. 250)
m3G1R3E9	.....	.....	..... (Seq. ID No. 251)
m3G1R3B10	KATFTADTSSNIAYMQLSSLTSEDSAVYYCAR	QVGLRWY	FDYWGQGTTLTVSS (Seq. ID No. 252)
m3G1R3B11	.....I.....	.....Y	..... (Seq. ID No. 253)
m3G1R3F11	.....I.....	.....Y	..... (Seq. ID No. 254)
m3G1R3H9	.....I.....	.....Y	..... (Seq. ID No. 255)
m3G1R3E7	RFTISRDDSQSILYLQMNTRLRAEDSATYYCLR	NGRPYYALDYWGQTSVSVSS	..... (Seq. ID No. 256)
m3G1R3E10	.....S.....	.....	..... (Seq. ID No. 257)
m3G1R3F8	.....S.....	.....	..... (Seq. ID No. 258)
m3G1R3G9	.....L.....	.....	..... (Seq. ID No. 259)
m3G1R3B7	KATFTADTSSNTAYMQLSSLTSEDSAVYYCAR	GLWLRGYF	FDYWGQGTTLTVSS (Seq. ID No. 260)
m3G1R3C7	.....GLW.....	GLW.....	..... (Seq. ID No. 261)
m3G1R3G12	.....GLW.....	GLW.....	..... (Seq. ID No. 262)
m3G2aR3C8	.....GLW.....	GLW.....	..... (Seq. ID No. 263)
m3G2aR3H7	.....GLW.....	GLW.....	..... (Seq. ID No. 264)
m3G2aR3B10	RFTISRDDSQSILYLQMNTRLRAEDSATYYCAR	HGRPYYLMDYWGQTSVTVSS	..... (Seq. ID No. 265)
m3G2aR3E10	.....	.....	..... (Seq. ID No. 266)
m3G2aR3D8	.....	.....	..... (Seq. ID No. 267)
m3G2aR3D4	KVTFTADTSSNTAYMQFSSLTSEDSAVYYCAT	TTVVVRDYL	FDYWGQGTTLTVSS (Seq. ID No. 268)
m3G2aR3B4	.....S.....L.....	.....	..... (Seq. ID No. 269)

Fig. 9c

Kappa light chain

Fab	Framework 1	CDR1	Framework 2	CDR2
m3G1R3B10	SRQIVLTQSPAIMASPGKEKVTWTC	SASSSVSYMH	WYQQKSSTSPKLWIY	DTSKLAAS
m3G1R3H9	.....	.....	.....	.....
m3G1R3B7	SRQIVLTQSPAIMASPGKEKVTWTC	SASSSVNYMH	WYQQKSGTSPKRWIY	DTSKLTSS
m3G1R3C7	.....	..N..S...	.....	.....A..
m3G1R3D12	SRQIVLTQSPAIMASPGKEKVTWTC	SASSSVSYMH	WYQQKSSTSPKLWIY	DTSKLAAS
m3G1R3E9	.....	.....	.....	.....
m3G1R3E7	SRDIQMTQSPASLSASVGETVTITC	RASENINSYLA	WFQQKQKSPQLLVY	DAKTLAE
m3G2aR3D8	.....	.....	.....	.....
m3G2aR3E10	.....	.....	.....	.....

Fab	Framework 3	CDR3	FR4	(Seq. ID No. 270)
m3G1R3B10	GVPGRFSGSGSGNSYSLTISSEAEADVATYYC	FQSGGYP	LT FGAGTKLELKR	(Seq. ID No. 271)
m3G1R3H9	.....	.....	..S.....I..	(Seq. ID No. 272)
m3G1R3B7	GVPARFSGSGSGTSYSLTISSEAEADAATYYC	QQWNRNP	PT FGGGTKLEIKR	(Seq. ID No. 273)
m3G1R3C7	.....	.....	.....	(Seq. ID No. 274)
m3G1R3D12	GVPGRFSGSGSGNSYSLTISSEAEADVATYYC	FQSGGYP	LT FGSGTKLEIKR	(Seq. ID No. 275)
m3G1R3E9	.....T.....	.....	.....	(Seq. ID No. 276)
m3G1R3E7	GVPGRFSGSGSGTQFSLKINSIQPEDFGSYVC	QHHYGIP	LT FGAGTKLELKR	(Seq. ID No. 277)
m3G2aR3D8	.....	.....	.....	(Seq. ID No. 278)
m3G2aR3E10	.....	.....	.....	(Seq. ID No. 278)

Fig. 9d